

U.S. Patent Application Serial No. 09/577,932
Attorney Docket No. 000663

IN THE CLAIMS:

Claim 1 (previously presented): A semiconductor device comprising:
a semiconductor element having a plurality of electrodes;
a redistribution layer having a plurality of electrode pads and electrical conductive patterns connecting the electrodes of the semiconductor element to the respective electrode pads;
a plurality of metal posts each with a first shape and a first size formed on the electrode pads of the redistribution layer, the metal posts being configured to be provided with external connection electrodes; and
at least one mark member with a second shape and a second size which serves as an alignment mark located in a predetermined positional relationship with the metal posts,
wherein the mark member is made of the same material as the metal posts; and
wherein the first shape and the first size are correspondingly different from the second shape and the second size.

Claim 2 (previously presented): The semiconductor device as claimed in claim 1, wherein the alignment mark has an outer configuration other than a circle.

Claim 3 (previously presented): The semiconductor device as claimed in claim 1, wherein a width of the alignment mark measured along a plane parallel to a surface of the redistribution layer is greater than a height of the metal posts.

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Claim 4 (previously presented): A semiconductor device comprising:
a semiconductor element having a plurality of electrodes;
a redistribution layer having a plurality of conductive patterns which connects the electrodes of the semiconductor device to a plurality of electrode pads each with a first shape and a first size located in predetermined positions of the redistribution layer; and
at least one mark member with a second shape and a second size which serves as an alignment mark located in a predetermined positional relationship with the electrode pads;
wherein the mark member is made of the same material with as the electrode pads; and
wherein the first shape and the first size are correspondingly different from the second shape and the second size.

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Claim 5 (previously presented): The semiconductor device as claimed in claim 4, wherein the alignment mark has an outer configuration other than a circle.

Claims 6-12 (canceled):

Claim 13 (previously presented): An apparatus for fixing a semiconductor wafer by suction, comprising:
a vacuum chuck table having a porous plate overlaying a plurality of concentric suction grooves;

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a plurality of suction passages each being correspondingly connected to the plurality of concentric suction grooves; and

each of the plurality of suction passages being connected to more than one hole on the porous plate;

suctioning device for sequentially introducing a suctioning force into the suction passages at different timing.

Claim 14 (previously presented): A semiconductor device comprising:

a semiconductor element having a plurality of electrodes;

a redistribution layer having a plurality of electrode pads and electrical conductive patterns connecting the electrodes of the semiconductor element to the respective electrode pads;

a plurality of metal posts with a first shape and a first size formed on the electrode pads of the redistribution layer, the metal posts being configured to be provided with external connection electrodes; and

at least one mark member with a second shape and a second size which serves as an alignment mark located in a predetermined positional relationship with the metal posts;

wherein the first shape and the first size are correspondingly different from the second shape and the second size.

Claim 15 (previously presented): A semiconductor device comprising:

a semiconductor element having a plurality of electrodes;

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a redistribution layer having a plurality of electrode pads and electrical conductive patterns connecting the electrodes of the semiconductor element to the respective electrode pads;

a plurality of metal posts formed on the electrode pads of the redistribution layer;

at least one electrode part comprising one of the metal posts and a protruding electrode attached to a top of the one of the metal posts; and

at least one mark member which serves as an alignment mark located in a predetermined positional relationship with the electrode part, the mark member comprising one of the metal posts but lacking the protruding electrode.

Final